

=====

Sequence Listing could not be accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: Mon May 21 15:10:42 EDT 2007

=====

Reviewer Comments:

<210> 30

<211> 39

<212> DNA

<213> artificial synthesized peptide sequence

<220>

<223> test fused

<400> 30

Invalid response for <213>, It can be either Artificial, unknown or Genus Species.

Please check for the subsequent errors in entire sequences.

<210> 33

<211> 1134

<212> DNA

<213> artificial sequence

<220>

<223> 21-153 (Q129R) + ZZ (serotype y) sequence

<400> 33

Invalid Response for <223>, please explain the source of genetic material.

Please check for this type of errors in other sequences too.

* * * * *

Application No: 10509249

Version No: 2.0

Input Set:

Output Set:

Started: 2007-05-21 13:08:40.939

Finished: 2007-05-21 13:08:47.304

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 365 ms

Total Warnings: 243

Total Errors: 0

No. of SeqIDs Defined: 245

Actual SeqID Count: 245

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2007-05-21 13:08:40.939
Finished: 2007-05-21 13:08:47.304
Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 365 ms
Total Warnings: 243
Total Errors: 0
No. of SeqIDs Defined: 245
Actual SeqID Count: 245

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> Japan Science and Technology Agency
Kuroda, Shunichi
Tanizawa, Katsuyuki
Okajima, Toshihide
Kondo, Akihiko
Ueda, Nasakazu
Seno, Masahura

<120> THERAPEUTIC DRUG USING ANTIBODY-DISPLAYING HOLLOW PROTEIN
NANOPARTICLES AND HOLLOW PROTEIN NANOPARTICLES

<130> 12480-000067/US

<140> 10509249

<141> 2004-09-28

<150> 10/509,249

<151> 2004-09-28

<160> 245

<170> PatentIn version 3.4

<210> 1

<211> 27

<212> DNA

<213> artificial sequence

<220>

<223> Synthesized Oligonucleotide

<400> 1

gctggtggtg gtggtggtg tggtggt

27

<210> 2

<211> 39

<212> DNA

<213> artificial sequence

<220>

<223> Synthesized Oligonucleotide

<400> 2

ctgagcctga gggctgcggc cgcctcccat gccttgctg

39

<210> 3

<211> 36

<212> DNA

<213> artificial sequence

<220>

<223> Synthesized Oligonucleotide

<400> 3
ggggacctcg gatccgcgag cttaccagtt ctcaca 36

<210> 4
<211> 36
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 4
gaggtcgacc agctttaacg aacgcagaat ttcga 36

<210> 5
<211> 33
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 5
ggcgcgtgga gccacccgca gttcgaaaaa ggc 33

<210> 6
<211> 33
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 6
ggcgccttt ttcgaactgc gggcggctcc agc 33

<210> 7
<211> 29
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 7
ggggtaccat gagatctttg ttgatcttg 29

<210> 8
<211> 28
<212> DNA
<213> artificial sequence

<220>
 <223> Synthesized Oligonucleotide

<400> 8
 ggccgcggtt aaatgtatac ccaaagac 28

<210> 9
 <211> 36
 <212> DNA
 <213> artificial sequence

<220>
 <223> Synthesized Oligonucleotide

<400> 9
 gggggcggcc gcgcgcaaca cgatgaagcc gtagac 36

<210> 10
 <211> 36
 <212> DNA
 <213> artificial sequence

<220>
 <223> Synthesized Oligonucleotide

<400> 10
 ggttgagata aaagagcttt tggcgcggcc gccttt 36

<210> 11
 <211> 36
 <212> DNA
 <213> artificial sequence

<220>
 <223> Synthesized Oligonucleotide

<400> 11
 cccgcggccg cccgaggaga cggtgactga ggtccc 36

<210> 12
 <211> 36
 <212> DNA
 <213> artificial sequence

<220>
 <223> Synthesized Oligonucleotide

<400> 12
 gggggcggcc gcgatgtgca gcttcaggag tcggga 36

<210> 13
 <211> 30

<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 13
ggggcgggccg ccttttatatt ccaactttgt 30

<210> 14
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 14
ggggcgggccg ccttttatatt ccaactttgt 30

<210> 15
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 15
ccagttggac ggcgggccgcc ctgcaccgaa c 31

<210> 16
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 16
gttcggtgca ggcgggccgc cgtccaactg g 31

<210> 17
<211> 34
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 17
caatccagat tggggcggcc gccctgcacc gaac 34

<210> 18
<211> 34
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 18
gttcggtgca gggcggccgc cccaatctgg attg 34

<210> 19
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 19
ggtaggagcg ggcggccgcc ctgcaccgaa c 31

<210> 20
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 20
gttcggtgca gggcggccgc ccgctcctac c 31

<210> 21
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 21
cctcaggccg gcggccgcc tgcaccgaac 30

<210> 22
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 22
gttcggtgca gggcggccgc cctgaggatg 30

<210> 23
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 23
gttcggtgca gggcggccgc cctgaggatg 30

<210> 24
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 24
cagagtgagg ggcggccgcc ctgcaccgaa c 31

<210> 25
<211> 31
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 25
gttcggtgca gggcggccgc ccctcactct g 31

<210> 26
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> Synthesized Oligonucleotide

<400> 26
ggtaggagcg ggcggccgca gccctcaggc 30

<210> 27
<211> 30
<212> DNA
<213> artificial sequence

<220>

<223> Synthesized Oligonucleotide

<400> 27

gcctgagggc tgcggccgcc cgctcctacc

30

<210> 28

<211> 10

<212> PRT

<213> artificial sequence

<220>

<223> artificial synthesized peptide sequence

<400> 28

Ser Ala Trp Arg His Pro Gln Phe Gly Gly

1 5 10

<210> 29

<211> 116

<212> PRT

<213> artificial sequence

<220>

<223> artificial synthesized peptide sequence

<400> 29

Val Asp Asn Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile

1 5 10 15

Leu His Leu Pro Asn Leu Asn Glu Glu Gln Arg Asn Ala Phe Ile Gln

20 25 30

Ser Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn Leu Leu Ala Glu Ala

35 40 45

Lys Lys Leu Asn Asp Ala Gln Ala Pro Lys Val Asp Asn Lys Phe Asn

50 55 60

Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu Pro Asn Leu

65 70 75 80

Asn Glu Glu Gln Arg Asn Ala Phe Ile Gln Ser Leu Lys Asp Asp Pro

85 90 95

Ser Gln Ser Ala Asn Leu Leu Ala Glu Ala Lys Lys Leu Asn Asp Ala

100 105 110

Gln Ala Pro Lys
115

<210> 30
<211> 39
<212> DNA
<213> artificial synthesized peptide sequence

<220>
<223> test fused

<400> 30
gctgctgctg ctgctgctag aagaagaaga agaagaaga 39

<210> 31
<211> 39
<212> DNA
<213> Artificial Sequence Fused Peptide

<220>
<223> 21-153 + ZZ (serotype y) sequence

<400> 31
gctgctgctg ctgctgctag aagaagaaga agaagaaga 39

<210> 32
<211> 378
<212> PRT
<213> artificial sequence

<220>
<223> protein corresponding to 21-153 + ZZ (serotype y) sequence

<400> 32

Met Gly Thr Asn Leu Ser Val Pro Asn Pro Leu Gly Phe Phe Pro Asp
1 5 10 15

His Gln Leu Asp Gly Gly Arg Ala Gln His Asp Glu Ala Val Asp Asn
20 25 30

Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu
35 40 45

Pro Asn Leu Asn Glu Glu Gln Arg Asn Ala Phe Ile Gln Ser Leu Lys
50 55 60

Asp Asp Pro Ser Gln Ser Ala Asn Leu Leu Ala Glu Ala Lys Lys Leu

65		70		75		80
Asn Asp Ala Gln Ala Pro Lys Val Asp Asn Lys Phe Asn Lys Glu Gln						
	85		90		95	
Gln Asn Ala Phe Tyr Glu Ile Leu His Leu Pro Asn Leu Asn Glu Glu						
	100		105		110	
Gln Arg Asn Ala Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser						
	115		120		125	
Ala Asn Leu Leu Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro						
	130		135		140	
Lys Ala Ala Ala Pro Ala Pro Asn Met Glu Asn Thr Thr Ser Gly Phe						
	145		150		155	160
Leu Gly Pro Leu Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg						
	165		170		175	
Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn						
	180		185		190	
Phe Leu Gly Gly Ala Pro Thr Cys Pro Gly Gln Asn Ser Gln Ser Pro						
	195		200		205	
Thr Ser Asn His Ser Pro Thr Ser Cys Pro Pro Ile Cys Pro Gly Tyr						
	210		215		220	
Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu						
	225		230		235	240
Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu						
	245		250		255	
Pro Val Cys Pro Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly Pro						
	260		265		270	
Cys Lys Thr Cys Thr Ile Pro Ala Gln Gly Thr Ser Met Phe Pro Ser						
	275		280		285	
Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile						
	290		295		300	

Pro Ser Ser Trp Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser Val
 305 310 315 320

Arg Phe Ser Trp Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val
 325 330 335

Gly Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr
 340 345 350

Trp Gly Pro Ser Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu
 355 360 365

Pro Ile Phe Phe Cys Leu Trp Val Tyr Ile
 370 375

<210> 33
 <211> 1134
 <212> DNA
 <213> artificial sequence

<220>
 <223> 21-153 (Q129R) + ZZ (serotype y) sequence

<400> 33
 atgggggacga atctttctgt tcccaatcct ctgggattct ttcccgatca ccagttggac 60
 ggcgggccgcg cgcaacacga tgaagccgta gacaacaaat tcaacaaaga acaacaaaac 120
 gcgttctatg agatcttaca tttaacctaac ttaaaccgaag aacaacgaaa cgccttcatac 180
 caaagtttaa aagatgaccc aagccaaagc gctaaccttt tagcagaagc taaaaagcta 240
 aatgatgctc aggcgcgcaa agtagacaac aaattcaaca aagaacaaca aaacgcgttc 300
 tatgagatct tacatttacc taacttaaac gaagaacaac gaaacgcctt catccaaagt 360
 ttaaaagatg acccaagcca aagcgctaac ctttttagcag aagctaaaaa gctaaatgat 420
 gctcaggcgc cgaaagcggc cgccccctgca ccgaacatgg agaacacaac atcaggattc 480
 ctaggacccc tgctcgtgtt acaggcgggg tttttcttgt tgacaagaat cctcacaata 540
 ccacagagtc tagactcgtg gtggacttct ctcaattttc tagggggagc acccacgtgt 600
 cctggcctaaa attcgcagtc cccaacctcc aatcactcac caacctcttg tctccaatt 660
 tgtcctggct atcgctggat gtgtctgcgg cgttttatca tattcctctt catcctgctg 720
 ctatgcctca tcttcttggt ggttcttctg gactaccaag gtatgttgcc cgtttgcct 780

ctacttccag gaacatcaac caccagcacg gggccatgca agacctgcac gattcctgct 840
cgaggaacct ctatgtttcc ctcttggtgc tgtacaaaac cttcggacgg aaactgcact 900
tgtattccca tcccatcatc ctgggctttc gcaagattcc tatgggagtg ggcctcagtc 960
cgtttctcct ggctcagttt actagtgcc a tttgttcagt ggttcgtagg gttttccccc 1020
actgtttggc tttcagttat atggatgatg tggatttggg ggccaagtct gtacaacatc 1080
ttgagtcctt ttttacctct attaccaatt ttcttttgtc tttgggtata catt 1134

<210> 34

<211> 378

<212> PRT

<213> artificial sequence

<220>

<223> Protein corresponding to 21-153 (Q129R) + ZZ (serotype y)
sequence

<400> 34

Met Gly Thr Asn Leu Ser Val Pro Asn Pro Leu Gly Phe Phe Pro Asp
1 5 10 15

His Gln Leu Asp Gly Gly Arg Ala Gln His Asp Glu Ala Val Asp Asn
20 25 30

Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu
35 40 45

Pro Asn Leu Asn Glu Glu Gln Arg Asn Ala Phe Ile Gln Ser Leu Lys
50 55 60

Asp Asp Pro Ser Gln Ser Ala Asn Leu Leu Ala Glu Ala Lys Lys Leu
65 70 75 80

Asn Asp Ala Gln Ala Pro Lys Val Asp Asn Lys Phe Asn Lys Glu Gln
85 90 95

Gln Asn Ala Phe Tyr Glu Ile Leu His Leu Pro Asn Leu Asn Glu Glu
100 105 110

Gln Arg Asn Ala Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser
115 120 125

Ala Asn Leu Leu Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro

130

135

140

Lys Ala Ala Ala Pro Ala Pro Asn Met Glu Asn Thr Thr Ser Gly Phe
 145 150 155 160

Leu Gly Pro Leu Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg
 165 170 175

Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn
 180 185 190

Phe Leu Gly Gly Ala Pro Thr Cys Pro Gly Gln Asn Ser Gln Ser Pro
 195 200 205

Thr Ser Asn His Ser Pro Thr Ser Cys Pro Pro Ile Cys Pro Gly Tyr
 210 215 220

Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu
 225 230 235 240

Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
 245 250 255

Pro Val Cys Pro Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly Pro
 260 265 270

Cys Lys Thr Cys Thr Ile Pro Ala Arg Gly Thr Ser Met Phe Pro Ser
 275 280 285

Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
 290 295 300

Pro Ser Ser Trp Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser Val
 305 310 315 320

Arg Phe Ser Trp Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val
 325 330 335

Gly Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr
 340 345 350

Trp Gly Pro Ser Leu Tyr Asn Ile Leu Ser Pro Phe Leu Pro Leu Leu
 355 360 365

Pro Ile Phe Phe Cys Leu Trp Val Tyr Ile
370 375

<210> 35

<211> 1134

<212> DNA

<213> artificial sequence

<220>

<223> 21-153 (G145R) + ZZ (serotype y) sequence

<400> 35

atggggacga atctttctgt tcccaatcct ctgggattct ttcccgatca ccagttggac	60
ggcggccgcg cgcaacacga tgaagccgta gacaacaaat tcaacaaaga acaacaaaac	120
gcgttctatg agatcttaca ttacctaac ttaaacgaag aacaacgaaa cgccttcac	180
caaagtttaa aagatgaccc aagccaaagc gctaaccttt tagcagaagc taaaaagcta	240
aatgatgctc aggcgcgcgaa agtagacaac aaattcaaca aagaacaaca aaacgcgttc	300
tatgagatct tacatttacc taacttaaac gaagaacaac gaaacgcctt catccaaagt	360
ttaaaagatg acccaagcca aagcgctaac ctttttagcag aagctaaaaa gctaaatgat	420
gctcaggcgc cgaaagcggc cgccctgca ccgaacatgg agaacacaac atcaggattc	480
ctaggacccc tgctcgtgtt acaggcgggg tttttcttgt tgacaagaat cctcacaata	540
ccacagagtc tagactcgtg gtggacttct ctcaattttc tagggggagc acccacgtgt	600
cctggccaaa attcgcagtc cccaacctcc aatcactcac caacctcttg tcctccaatt	660
tgtcctggct atcgctggat gtgtctgcgg cgttttatca tattcctctt catcctgctg	720
ctatgcctca tcttcttggt ggttcttctg gactaccaag gtatgttgcc cgtttgcct	780
ctacttcag gaacatcaac caccagcacg ggcccatgca agacctgcac gattcctgct	840
caaggaacct ctatgtttcc ctcttggtgc tgtacaaaac cttcggacag aaactgcact	900
tgtattccca tcccatcatc ctgggctttc gcaagattcc tatgggagtg ggcctcagtc	960
cgtttctcct ggctcagttt actagtcca tttgttcagt ggctcgtagg gctttccccc	1020
actgtttggc tttcagttat atggatgatg tggattggg ggccaagtct gtacaacatc	1080
ttgagtcctt ttttacctct attaccaatt ttcttttgtc tttgggtata catt	1134

<210> 36

<211> 378

<212> PRT

$\langle 220 \rangle$

<400> 36

His Gln Leu Asp Gly Gly Arg Ala Gln His Asp Glu Ala Val Asp Asn
20